

F.A.P. R.T.E.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	06-00241-00-PV	COOK	115	49
<b>STORM SEWER RELIEF GENERAL NOTES</b>				
ILLINOIS				

**METROPOLITAN WATER RECLAMATION DISTRICT OF GREATER CHICAGO**

**MWRD TYPICAL GENERAL NOTES**

CONTRACT NUMBER 83968

F-1. THE MWRD LOCAL SEWER SYSTEMS SECTION FIELD OFFICE MUST BE NOTIFIED AT LEAST TWO (2) WORKING DAYS PRIOR TO THE COMMENCEMENT OF WORK (CALL 708-588-4055).

F-2. ALL ELEVATIONS ARE BASED ON U.S.G.S. DATUM.  
U.S.G.S. DATUM = CHICAGO CITY DATUM +579.48

F-3. ALL FLOOR DRAINS SHALL DISCHARGE TO THE SANITARY SEWER SYSTEM.

F-4. ALL DOWNSPOUTS AND FOOTING DRAINS SHALL DISCHARGE TO THE STORM SEWER SYSTEM.

F-5. ALL SANITARY SEWER PIPE LESS THAN 15 FEET DEEP SHALL BE OF THE SIZE INDICATED ON THE PLANS AND SHALL BE PVC SDR 26 (ASTM D-3034), HAVING GASKET JOINTS CONFORMING TO ASTM D3212. ALL SANITARY SEWER PIPE GREATER THAN 15 FEET DEEP SHALL BE DIP, CLASS 52, ANSI A 21.51 HAVING JOINTS CONFORMING TO ANSI A21.11.

F-6. ALL SANITARY SEWER CONSTRUCTION, REQUIRES STONE BEDDING 1/4" TO 1" IN SIZE, WITH A MINIMUM THICKNESS EQUAL TO 1/4 OF THE OUTSIDE DIAMETER OF THE SEWER PIPE, BUT NOT LESS THAN 4" NOR MORE THAN 8". MATERIAL SHALL BE CA-11 OR CA-13 AND SHALL BE EXTENDED AT LEAST 12" ABOVE THE TOP OF THE PIPE WHEN USING PVC.

F-7. 'BAND-SEAL' OR SIMILAR FLEXIBLE TYPE COUPLINGS SHALL BE USED WHEN CONNECTING SEWER PIPES OF DISSIMILAR MATERIALS.

F-8. WHEN CONNECTING TO AN EXISTING SEWER MAIN BY MEANS OTHER THAN AN EXISTING WYE, TEE, OR AN EXISTING MANHOLE, ONE OF THE FOLLOWING SHALL BE USED:  
A. CIRCULAR SAW-CUT OF SEWER MAIN BY PROPER TOOLS ("SEWER-TAP" MACHINE OR SIMILAR) AND PROPER INSTALLATION OF HUB-WYE OR HUB-TEE SADDLE.

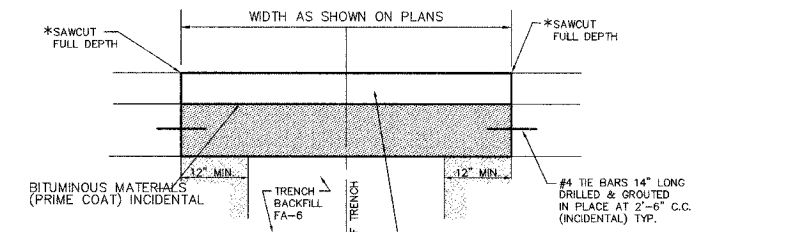
B. REMOVE AN ENTIRE SECTION OF PIPE (BREAKING ONLY THE TOP OF ONE BELL) AND REPLACE WITH A WYE OR BRANCH SECTION.

C. WITH A PIPE CUTTER, NEATLY AND ACCURATELY CUT OUT DESIRED LENGTH OF PIPE FOR INSERTION OF PROPER FITTING USING "BAND-SEAL" OR SIMILAR COUPLINGS TO HOLD IT FIRMLY IN PLACE.

F-9. WHEREVER A SANITARY/COMBINED SEWER CROSS UNDER A WATERMAIN, THE MINIMUM VERTICAL DISTANCE FROM THE TOP OF THE SEWER TO THE BOTTOM OF THE WATERMAIN SHALL BE 18 INCHES. FURTHERMORE, A MINIMUM HORIZONTAL DISTANCE OF 10 FEET BETWEEN SANITARY/COMBINED SEWERS AND WATERMANS SHALL BE MAINTAINED UNLESS: THE SEWER IS LAID IN A SEPARATE TRENCH, KEEPING A MINIMUM 18 INCHES VERTICAL SEPARATION, OR THE SEWER IS LAID IN THE SAME TRENCH WITH THE WATERMAIN LOCATED AT THE OPPOSITE SIDE ON A BENCH OF UNDISTURBED EARTH, KEEPING A MINIMUM 18 INCHES VERTICAL SEPARATION. IF EITHER THE VERTICAL OR HORIZONTAL DISTANCES DESCRIBED ABOVE CANNOT BE MAINTAINED, OR THE SEWER CROSSES ABOVE THE WATERMAIN, THE SEWER SHALL BE CONSTRUCTED TO WATERMAIN STANDARDS.

F-10. ALL EXISTING SEPTIC SYSTEMS SHALL BE ABANDONED. ABANDONED TANKS SHALL BE FILLED WITH GRANULAR MATERIAL OR REMOVED.

F-11. ALL SANITARY MANHOLES, (AND STORM MANHOLES IN COMBINED SEWER AREAS), SHALL HAVE A MINIMUM INSIDE DIAMETER OF 48 INCHES, AND SHALL BE CAST IN PLACE OR PRE-CAST REINFORCED CONCRETE. (SEE DETAIL ON SHEET 47). RESILIENT CONNECTORS CONFORMING TO ASTM C923 SHALL BE USED BETWEEN ALL MANHOLES AND PIPE(S) FOR STORM, RELIEF SEWER AND SANITARY SEWER LINES.



\*FULL DEPTH SAWCUTTING WILL BE REQUIRED PRIOR TO EXCAVATION. ALL BROKEN EDGES AS DIRECTED BY THE ENGINEER, WILL BE GIVEN A SECOND FULL DEPTH SAW CUTTING PRIOR TO PAVEMENT PLACEMENT. IF THE DISTANCE BETWEEN EDGE OF THE TRENCH AND EDGE OF PAVEMENT IS LESS THAN 4 FEET USE EDGE OF PAVEMENT AS THE EDGE OF PATCH.  
NOTE: HIGH EARLY STRENGTH CONCRETE NEEDS ONLY TO BE USED ON RIDGE FROM MAIN TO LEE STREET. ALL OTHER LOCATIONS ON RIDGE SHALL HAVE CLASS PY CONCRETE.)

**CLASS B PATCHES (HIGH EARLY CONCRETE) ITEM# XX005065 (MAIN TO LEE ONLY)**

**CLASS B PATCHES ITEM# XX005063 (ALL OTHER LOCATIONS)**

**(9' P.C.C. BASE TIED TO EXISTING CONCRETE BASE WITH 3' HOT-MIX ASPHALT OVERLAY)**

**GENERAL NOTES**

- A-1. THE ILLINOIS DEPARTMENT OF TRANSPORTATION "STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION" LATEST EDITION, THE "STANDARD SPECIFICATIONS FOR WATER AND SEWER MAIN CONSTRUCTION IN ILLINOIS" LATEST EDITION, PROJECT SPECIFICATIONS, ALL APPLICABLE REQUIREMENTS OF THE ILLINOIS ENVIRONMENTAL PROTECTION AGENCY, THE RESPECTIVE CITY, ALL APPLICABLE REQUIREMENTS OF THE ORDINANCES OF AUTHORITIES HAVING JURISDICTION AND ALL ADDENDA THERETO SHALL GOVERN THIS WORK.
- A-2. THE STANDARD SPECIFICATIONS, PROJECT SPECIFICATIONS, CONSTRUCTION PLANS AND SUBSEQUENT DETAILS ARE ALL TO BE CONSIDERED AS PART OF THE CONTRACT. INCIDENTAL ITEMS OR ACCESSORIES NECESSARY TO COMPLETE THIS WORK MAY NOT BE SPECIFICALLY NOTED BUT ARE TO BE CONSIDERED A PART OF THE CONTRACT.
- A-3. NO CONSTRUCTION PLANS SHALL BE USED FOR CONSTRUCTION UNLESS SPECIFICALLY MARKED FOR CONSTRUCTION. PRIOR TO COMMENCEMENT OF CONSTRUCTION, THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND CONDITIONS AFFECTING THEIR WORK WITH THE ACTUAL CONDITIONS AT THE JOB SITE. IN ADDITION, THE CONTRACTOR MUST VERIFY THE ENGINEER'S LINE AND GRADES. IF THERE ARE ANY DISCREPANCIES FROM WHAT IS SHOWN ON THE CONSTRUCTION PLANS, STANDARD SPECIFICATIONS AND/OR SPECIAL DETAILS, THE CONTRACTOR SHALL SECURE WRITTEN INSTRUCTION FROM THE ENGINEER PRIOR TO PROCEEDING WITH ANY PART OF THE WORK AFFECTED BY OMISSION OR DISCREPANCIES. FAILING TO SECURE SUCH INSTRUCTION, THE CONTRACTOR WILL BE CONSIDERED TO HAVE PROCEEDED AT HIS OWN RISK AND EXPENSE. IN THE EVENT OF ANY DOUBT OR QUESTION ARISING WITH RESPECT TO THE TRUE MEANING OF THE CONSTRUCTION PLANS OR SPECIFICATIONS, THE DECISION OF THE ENGINEER SHALL BE FINAL AND CONCLUSIVE.
- A-4. BEFORE ACCEPTANCE BY THE OWNER AND FINAL PAYMENT, ALL WORK SHALL BE INSPECTED AND APPROVED BY THE OWNER OR HIS REPRESENTATIVES. FINAL PAYMENT WILL BE MADE AFTER ALL OF THE CONTRACTOR'S WORK HAS BEEN APPROVED AND ACCEPTED.
- A-5. WHENEVER, DURING CONSTRUCTION OPERATIONS, ANY LOOSE MATERIAL IS DEPOSITED IN THE FLOW LINE OF GUTTERS, DRAINAGE STRUCTURES, DITCHES, ETC. SUCH THAT THE NATURAL FLOW LINE OF WATER IS OBSTRUCTED, THE LOOSE MATERIAL WILL BE REMOVED AT THE CLOSE OF EACH WORKING DAY. AT THE CONCLUSION OF CONSTRUCTION OPERATIONS ALL DRAINAGE STRUCTURES AND FLOW LINES SHALL BE FREE FROM DIRT AND DEBRIS. THIS WORK SHALL BE CONSIDERED INCIDENTAL TO THE CONTRACT. THE CONTRACTOR'S FAILURE TO PROVIDE THE ABOVE WILL PRECLUDE ANY POSSIBLE ADDED COMPENSATION REQUESTED DUE TO DELAYS OR UNSUITABLE MATERIALS CREATED AS A RESULT THEREOF.
- A-6. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE INSTALLATION AND MAINTENANCE OF CONTROL DEVICES, AND WARNING DEVICES TO INFORM AND PROTECT THE PUBLIC DURING ALL PHASES OF CONSTRUCTION.
- A-7. WHENEVER THE PERFORMANCE OF WORK IS INDICATED ON THE PLANS AND NO ITEM IS INCLUDED IN THE CONTRACT FOR PAYMENT, THE WORK SHALL BE CONSIDERED INCIDENTAL TO THE CONTRACT, AND NO ADDITIONAL COMPENSATION WILL BE ALLOWED.
- A-8. DURING CONSTRUCTION OPERATIONS THE CONTRACTOR SHALL ENSURE POSITIVE SITE DRAINAGE AT THE CONCLUSION OF EACH DAY. SITE DRAINAGE MAY BE ACHIEVED BY DITCHING, PUMPING OR ANY OTHER METHOD ACCEPTABLE TO THE ENGINEER AND RESPECTIVE CITY. THE CONTRACTOR'S FAILURE TO PROVIDE THE ABOVE WILL PRECLUDE ANY POSSIBLE ADDED COMPENSATION REQUESTED DUE TO DELAYS OR UNSUITABLE MATERIALS CREATED AS A RESULT THEREOF.
- A-9. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CLEANING ANY ROAD OF MATERIAL THAT IS FROM THE PROJECT. THIS WILL BE DONE AT THE CLOSE OF EACH DAY OF WORK OR MORE FREQUENTLY AS MAY BE REQUIRED DUE TO FIELD CONDITIONS.
- A-10. ALL CONSTRUCTION WORK SHALL BE INSPECTED BY THE ENGINEER AND THE CITY. SPECIFICALLY ALL TRENCHES AND SEWERS SHALL BE LEFT OPEN (BUT SAFELY BARRICADED) UNTIL INSPECTED AND APPROVED BY THE CITY ENGINEER.
- A-11. PAVEMENT SUBBASE, BASE, AND SURFACE MUST EACH BE INSPECTED BY THE ENGINEER AND THE RESPECTIVE CITY PRIOR TO THE NEXT PHASE OF WORK. PROOF ROLLING AND NUCLEAR DENSITY TESTING WILL BE UTILIZED.
- A-12. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO REMOVE FROM THE SITE ANY AND ALL MATERIALS AND DEBRIS WHICH RESULT FROM HIS CONSTRUCTION OPERATIONS AT NO ADDITIONAL EXPENSE TO THE OWNER.
- A-13. WHEN A CONFLICT BETWEEN PLANS AND SPECIFICATIONS OR NOTES OCCURS, THE ENGINEER SHALL RECORD WHICH GOVERNS. GENERALLY, THE MORE RESTRICTIVE, MORE SPECIFIC, OR STRICTER PROVISION SHALL GOVERN.
- A-14. CONTRACTOR IS RESPONSIBLE FOR RETURNING ALL AREAS AFFECTED BY EQUIPMENT OR LABORERS TO EXISTING CONDITIONS. CONTRACTOR IS ALSO RESPONSIBLE FOR PROTECTING ALL NEW WORK UNTIL COMPLETION OF THIS CONTRACT.
- A-15. THE CONTRACTOR SHALL INDEMNIFY THE OWNER, THE ENGINEER, THE RESPECTIVE CITY AND THEIR AGENTS, FROM ALL LIABILITY INVOLVED IN THE CONSTRUCTION, INSTALLATION AND TESTING OF THE WORK ON THIS PROJECT.
- A-16. THE CONTRACTOR MUST CARRY INSURANCE IN ACCORDANCE WITH CITY SPECIFICATIONS AND MUST PRESENT A JOB-SPECIFIC CERTIFICATE OF INSURANCE NAMING ALL OFFICIALS AND EMPLOYEES OF THE CITY, AND THE ENGINEER, AS ADDITIONAL INSURED.
- A-17. EXISTING UTILITIES: WHEN THE PLANS OR SPECIAL PROVISIONS INCLUDE INFORMATION PERTAINING TO THE LOCATION OF UNDERGROUND UTILITY FACILITIES, SUCH INFORMATION REPRESENTS ONLY THE OPINION OF THE ENGINEER AS TO THE LOCATION OF SUCH UTILITIES AND IS ONLY INCLUDED FOR THE CONVENIENCE OF THE CONTRACTOR. THE ENGINEER AND OWNER ASSUME NO RESPONSIBILITY WHATSOEVER IN RESPECT TO THE SUFFICIENCY OR ACCURACY OF THE INFORMATION SHOWN ON THE PLANS RELATIVE TO THE LOCATION OF UNDERGROUND UTILITY FACILITIES OR THE MANNER IN WHICH THEY ARE TO BE REMOVED OR ADJUSTED. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE THE ACTUAL LOCATION OF ALL SUCH FACILITIES. HE SHALL ALSO OBTAIN FROM THE RESPECTIVE UTILITY COMPANIES, J.U.L.I.E., THE RESPECTIVE CITY, DETAILED INFORMATION RELATIVE TO THE LOCATION OF THEIR FACILITIES AND THE WORKING SCHEDULES OF THE UTILITY COMPANIES FOR REMOVING OR ADJUSTING THEM.
- A-18. ALL WORK PERFORMED UNDER THIS CONTRACT SHALL BE GUARANTEED BY THE CONTRACTOR AND HIS SURETY FOR A PERIOD OF 12 MONTHS FROM THE DATE OF INITIAL ACCEPTANCE OF THE WORK BY THE OWNER AGAINST ALL DEFECTS IN MATERIALS AND WORKMANSHIP OF WHATEVER NATURE.
- A-19. EASEMENTS FOR THE EXISTING UTILITIES, BOTH PUBLIC AND PRIVATE, AND UTILITIES WITHIN PUBLIC RIGHTS-OF-WAY ARE SHOWN ON THE PLANS ACCORDING TO AVAILABLE RECORDS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR DETERMINING THE EXACT LOCATION IN THE FIELD OF THESE UTILITY LINES AND THEIR PROTECTION FROM DAMAGE DUE TO CONSTRUCTION OPERATIONS. IF EXISTING UTILITY LINES OF ANY NATURE ARE ENCOUNTERED WHICH CONFLICT IN LOCATION WITH NEW CONSTRUCTION, THE CONTRACTOR SHALL NOTIFY THE ENGINEER SO THAT THE CONFLICT MAY BE RESOLVED.
- A-20. REMOVED PAVEMENT, SIDEWALK, CURB AND GUTTER, ETC. SHALL BE DISPOSED OF OFFSITE AT LOCATIONS PROVIDED BY THE CONTRACTOR AT HIS EXPENSE.

**SOIL EROSION NOTES**

- B-1. THE CONTRACTOR SHALL INSTALL AND MAINTAIN SOIL EROSION CONTROL DEVICES IN ACCORDANCE WITH THE PLANS AND SPECIFICATIONS. ALL CONSTRUCTION WILL ADHERE TO THE REQUIREMENTS SET FORTH IN THE IEPA'S NEW CONSTRUCTION SITE ACTIVITIES NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) STORM WATER PERMIT.
- B-2. DISTURBED AREAS AND AREAS USED FOR STORAGE OF MATERIALS THAT ARE EXPOSED TO PRECIPITATION SHALL BE INSPECTED FOR EVIDENCE OF, OR THE POTENTIAL FOR, POLLUTANTS ENTERING THE DRAINAGE SYSTEM. EROSION AND SEDIMENT CONTROL MEASURES IDENTIFIED IN THE PLAN SHALL BE OBSERVED TO ENSURE THAT THEY ARE OPERATING CORRECTLY. WHERE DISCHARGE LOCATIONS OR POINTS ARE ACCESSIBLE, THEY SHALL BE INSPECTED TO ASCERTAIN WHETHER EROSION CONTROL MEASURES ARE EFFECTIVE IN PREVENTING SIGNIFICANT IMPACTS TO RECEIVING WATERS. LOCATIONS WHERE VEHICLES ENTER OR EXIT THE SITE SHALL BE INSPECTED FOR EVIDENCE OF OFFSITE SEDIMENT TRACKING.
- B-3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CLEANING ANY ROAD OF MATERIAL THAT IS FROM THE PROJECT. THIS WILL BE DONE AT THE CLOSE OF EACH DAY OF WORK OR MORE FREQUENTLY AS MAY BE REQUIRED DUE TO FIELD CONDITIONS.
- B-4. ALL PROPOSED GREEN AREAS SHALL BE VEGETATED WITHIN 2 MONTHS OF BEING DISTURBED WITH CRITICAL DRAINAGE AREAS REQUIRING IMMEDIATE ATTENTION. ALL GREEN AREAS SHALL RECEIVE A MINIMUM OF 4" OF TOPSOIL AND BE SEEDED OR SODDED IMMEDIATELY.
- B-5. AFTER ACHIEVING PERMANENT VEGETATION, ALL BALES SHALL BE REMOVED AND ALL DRAINAGE STRUCTURES CLEANED.
- B-6. THE CONTRACTOR SHALL KEEP A WATER TRUCK AT HIS DISPOSAL FOR THE PURPOSE OF WATERING DOWN SOIL WHICH OTHERWISE MAY BECOME AIRBORNE.
- B-7. THE CONTRACTOR IS EXPRESSLY ADVISED NOT TO DISTURB AREAS WHICH ARE OUTSIDE THOSE NECESSARY TO PROVIDE THE IMPROVEMENTS AS CALLED FOR IN THE PLANS. IN PARTICULAR, SPECIFIC TREES WILL BE TARGETED FOR PRESERVATION AND ROOT ZONE PROTECTION.
- B-8. PUMPS MAY BE USED AS BYPASS DEVICES BUT IN NO CASE WILL THE WATER BE DIVERTED OUTSIDE THE PROJECT LIMIT.

**UTILITY/IEPA NOTES**

- C-1. SEWER AND WATER CONTRACTOR SHALL BE LICENSED AND BONDED WITH THE RESPECTIVE CITY.
- C-2. ALL WATERMAIN CONSTRUCTION SHALL CONFORM TO THE RESPECTIVE CITY, THE IEPA REQUIREMENTS, AND THE STANDARD SPECIFICATIONS FOR SEWER AND WATERMAIN CONSTRUCTION IN ILLINOIS, PUBLISHED BY THE ISPE.
- C-3. THE CONTRACTOR SHALL PROVIDE A LIST OF SEWER AND WATER SERVICE MEASUREMENTS TO THE RESPECTIVE CITY AND TO THE PROJECT ENGINEER AT THE CONCLUSION OF THE JOB.
- C-4. THE CONTRACTOR SHALL NOTIFY THE PROJECT ENGINEER (847)478-9700 AND THE AT CITY OF EVANSTON (847)866-2967 LEAST 3 WORKING DAYS PRIOR TO BEGINNING ANY WORK ON THIS PROJECT.
- C-5. UNDERGROUND WORK SHALL INCLUDE TRENCHING, Dewatering, INSTALLATION OF PIPE, CASTINGS, STRUCTURES, BACKFILLING OF TRENCHES AND COMPACTION, AND TESTING AS SHOWN ON THE CONSTRUCTION PLANS. FITTINGS AND ACCESSORIES NECESSARY TO COMPLETE THE WORK MAY NOT BE SPECIFIED BUT SHALL BE CONSIDERED AS INCIDENTAL TO THE COST OF THE CONTRACT. ALL SEWER SHALL BE INSTALLED USING A LASER. CONTRACTOR SHALL PROVIDE "AS BUILT" DRAWINGS OF ALL SEWER AND WATERMAIN INSTALLATIONS.
- C-6. 'BAND-SEAL' OR SIMILAR FLEXIBLE TYPE COUPLINGS SHALL BE USED WHEN CONNECTING SEWER PIPES OF DISSIMILAR MATERIALS.
- C-7. WHEN CONNECTING TO AN EXISTING SEWER MAIN BY MEANS OTHER THAN AN EXISTING WYE, TEE, OR AN EXISTING MANHOLE ONE OF THE FOLLOWING METHODS SHALL BE USED:  
(1) CIRCULAR, SAW-CUT OF SEWER MAIN WITH PROPER TOOLS ("SEWER-TAP" MACHINE OR SIMILAR) AND PROPER INSTALLATION OF HUB - WYE SADDLE OR HUB - TEE SADDLE, IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.  
(2) USING PIPE CUTTER, NEATLY AND ACCURATELY CUT OUT DESIRED LENGTH OF PIPE FOR INSERTION OF PROPER FITTING. USE "BAND-SEAL" COUPLINGS OR SIMILAR COUPLINGS, AND SHEAR RINGS AND CLAMPS TO FASTEN THE INSERTED FITTING AND HOLD IT FIRMLY IN PLACE. MISSION COUPLINGS SHALL HAVE THE LENGTH OF BOOT APPROXIMATELY EQUAL TO THE PIPE DIAMETER. FOLLOW MANUFACTURER'S RECOMMENDATIONS FOR THE INSTALLATION.
- C-8. ALL SANITARY SEWER AND WATERMAIN TRENCHES BENEATH PROPOSED OR EXISTING UTILITIES, PROPOSED OR EXISTING PAVEMENT, DRIVEWAYS, SIDEWALKS AND WITHIN THE ZONE OF INFLUENCE OF SUCH IMPROVEMENTS, AND/OR WHEREVER ELSE SHOWN ON THE CONSTRUCTION PLAN SHALL BE BACKFILLED WITH FA-6 SAND AND THOROUGHLY COMPACTED IN ACCORDANCE WITH THE SPECIFICATIONS. STORM SEWER SHALL BE BACKFILLED WITH FA-6 SAND.
- C-9. ALL STRUCTURE SECTIONS AND ADJUSTING RINGS SHALL BE SECURELY SEALED TO EACH OTHER OR TO THE FRAME, CONE SECTION OF THE STRUCTURE USING RESILIENT, FLEXIBLE, NON-HARDENING, PREFORMED, BITUMINOUS MASTIC (RAM-NEK, OR APPROVED EQUAL.) THIS MASTIC SHALL BE APPLIED IN SUCH A MANNER THAT NO SURFACE WATER OR GROUND WATER INFLOW CAN ENTER THE STRUCTURE THROUGH GAPS BETWEEN BARREL SECTIONS OR CONE SECTIONS AND ADJUSTING RINGS.
- C-10. THE CONTRACTOR IS RESPONSIBLE FOR CONTACTING JULIE AS WELL AS LOCAL CABLE TV COMPANIES AND THE CITY. THE FACILITIES SHALL BE LOCATED PRIOR TO ANY WORK WITHIN ANY EASEMENT, R.O.W, OR SUSPECTED UTILITY LOCATION.
- C-11. MACHINE CORE ALL CONNECTIONS TO EXISTING STRUCTURES. PIPE PENETRATIONS INTO EXISTING SANITARY MANHOLES SHALL BE PROPERLY SIZED AND CORED AND SEALED WITH FLEXIBLE WATER TIGHT CONNECTIONS.
- C-12. ALL EXISTING STRUCTURES SHALL BE ADJUSTED AS NECESSARY TO MATCH PROPOSED GRADES & LANDSCAPING.
- C-13. ALL SEWERS SHALL BE INSTALLED ON CRUSHED STONE BEDDING (CA-11) WITH A MINIMUM THICKNESS OF 4 INCHES. THE BEDDING MATERIAL SHALL BE PLACED AND COMPACTED TO 12" ABOVE THE TOP OF PIPE. BLOCKING OF ANY KIND FOR GRADE IS NOT PERMITTED. ALL PVC PIPE AND DUCTILE IRON PIPE SHALL BE INSTALLED ON CRUSHED STONE BEDDING (CA-11) WITH A MINIMUM THICKNESS OF 4 INCHES. PROPERLY COMPACT AND EXTEND THE BEDDING TO 12 INCHES OVER THE TOP OF THE PIPE.

- C-14. SERVICE CONNECTIONS TO NEW SEWERS SHALL BE MADE WITH WYE BRANCHES. WYE BRANCHES SHALL BE FACTORY MANUFACTURED PERMANENTLY AFFIXED TO THE MAIN SEWER. TEE BRANCHES ARE NOT ALLOWED.
- PAVING AND GRADING NOTES**
- D-1. ALL PAVEMENT DIMENSIONS ARE TO THE EDGE OF PAVEMENT, UNLESS OTHERWISE INDICATED.
  - D-2. PAVING WORK SHALL INCLUDE FINAL SUB-GRADE SHAPING AND PREPARATION, FORMING, PLACEMENT OF BASE COURSE MATERIALS, PATCHING, PETROMAT, AND SUBSEQUENT BINDER AND/OR SURFACE COURSES, FINISHING AND CURING OF CONCRETE, FINAL CLEAN-UP AND ALL RELATED WORK.
  - D-3. THE PROPOSED PAVEMENT SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE 'STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION', LATEST EDITION.
  - D-4. PAVEMENT DESIGN SHALL BE AS DETAILED. PRIOR TO THE PLACEMENT OF ANY STONE BASE ALL SUBBASE SHALL BE COMPACTED WITH A SELF-PROPELLED SHEEPSFOOT COMPACTOR (CAT 815 OR LARGER) TO A MINIMUM DENSITY OF 95% MODIFIED PROCTOR FOR ALL PAVEMENT. TESTING SHALL BE BY NUCLEAR DENSITY TEST AND PROOF ROLLING. THE CONTRACTOR SHALL PROOF ROLL THE SUBGRADE BEFORE PAVEMENT CONSTRUCTION PROCEEDS. THE PROOF ROLL MUST BE WITNESSED BY THE ENGINEER AND A REPRESENTATIVE OF THE CITY. THE SUBGRADE WILL NOT BE APPROVED AND ACCEPTED WITHOUT PROOF ROLLING. THE PROOF ROLLING SHALL BE DONE BY A FULLY LOADED THREE-AXLE DUMP TRUCK TOGETHER WITH LOAD WEIGHING AT LEAST TWENTY-FIVE (25) TONS. IF THE SUBGRADE OR BASE HAS FAILURE OR PUMPING AS INDICATED BY PROOF ROLLING, THE AREA OF FAILURE OR PUMPING SHALL BE SCARIFIED AND RECOMPACTED IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS, SUBSEQUENT PROOF ROLL WILL BE CONDUCTED UNTIL THE SUBGRADE IS FOUND TO BE ACCEPTABLE TO THE ENGINEER.
  - D-5. A MODIFIED PROCTOR DENSITY OF 95% IS REQUIRED FOR STONE BASE. A DENSITY OF 93% IS REQUIRED FOR ASPHALT. ALL OFF-ROAD ZONES SHALL BE COMPACTED TO A MINIMUM OF 85% MODIFIED PROCTOR. FILL CANNOT INCLUDE DEBRIS. (REMOVE ALL DEBRIS, TREES, ETC. FROM SITE).
  - D-6. ALL DISTURBED NON-PAVEMENT AREAS SHALL BE ROUGH GRADED. THE CONTRACTOR IS RESPONSIBLE FOR ALL EROSION PREVENTION AND REPAIR.
  - D-7. CURB AND GUTTER SHALL BE M3.12, B6.12, VERTICAL CURB OR MATCH EXISTING FOR SHORT SECTIONS. THE CURB SHALL CONSIST OF PORTLAND CEMENT CONCRETE, 4" SLUMP, 6.1 BAG MIX, AND AIR ENTRAINMENT OF NOT LESS FIVE (5%) OR MORE THAN EIGHT (8%). CONCRETE SHALL BE A MINIMUM COMPRESSIVE STRENGTH (3500 PSI) AT FOURTEEN (14) DAYS. ALL CURB AND GUTTER SHALL BE BROOM FINISHED. SAW CONTRACTION JOINTS AT LEAST 2' IN DEPTH 15' O.C. AND AT ALL P.C.'S & P.T.'S WITHIN 24 HOURS. CURB AND GUTTER SHALL BE BACKFILLED AFTER PAVEMENT IS INSTALLED. IT SHALL BE BACKFILLED AND COMPACTED FOR A DISTANCE OF 5 FEET AT A 2% GRADE.
  - D-8. 3/4" THICK PRE-MOLDED FIBER EXPANSION JOINTS WITH 3/4" x 18" PLAIN ROUND, STEEL DOWEL BARS SHALL BE INSTALLED IN ALL CURBS, 1/2" x 12" PLAIN ROUND STEEL DOWEL BARS IN SIDEWALK AT (60") SIXTY FOOT INTERVALS AND AT ALL P.C.'S, P.T.'S, CURB RETURNS. ALTERNATE ENDS OF THE DOWEL BARS SHALL BE GREASED AND FITTED WITH METAL EXPANSION TUBES. ALL EXPANSION JOINTS MUST BE FREE OF CONCRETE FOR FULL DEPTH. CONTRACTION JOINTS SHALL BE TOOLED AT 5' INTERVALS IN THE SIDEWALK. THE COST OF THESE JOINTS SHALL BE CONSIDERED AS INCIDENTAL TO THE COST OF THE CONTRACT. CONTRACTION JOINTS SHALL ALSO BE TOOLED DOWN THE CENTER OF ALL SIDEWALKS GREATER THAN 6' WIDE. (FIVE FOOT SPACING MAXIMUM).
  - D-9. ALL PORTLAND CEMENT CONCRETE SHALL BE CURED AND PROTECTED IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS. TWO COATS OF WHITE CURING COMPOUND SHALL BE APPLIED TO ALL CONCRETE WORK AS SOON AS THE FINISH IS COMPLETE, WITHIN ONE (1) HOUR OF FINAL STRIKING.
  - D-10. A VIBRATORY ROLLER IS REQUIRED FOR THE BREAKDOWN PASSES, AND A STATIC ROLLER FOR THE FINISH COURSE. WEIGHTS AS PER IDOT SPECS.
  - D-11. CONCRETE SURFACE (SIDEWALKS, DRIVEWAYS, AND PAVEMENTS)  
A) FINISH WITH A LIGHT BROOM FINISH.  
B) 6.1 BAG MIX, 4" SLUMP MAX, 5%-8% AIR-ENTRAINED, READY-MIX CONCRETE.  
C) 4000 PSI AT 28 DAYS, TWO CYLINDERS/25 CY. (TO BE PROVIDED AND TAKEN BY CONTRACTOR).  
D) SLOPE AT MINIMUM 1% AS NOTED ON PLANS.
  - D-12. CONCRETE SIDEWALKS SHALL BE 5" THICK (6" THICK THROUGH DRIVEWAYS), SET ON THE 4" CA-6 CRUSHED STONE COMPACTED SUBBASE AND SHALL BE 1/4" /FOOT ABOVE THE ADJACENT CURB. SPECIFICATIONS FOR CONCRETE AND CURB AND GUTTER SHALL HAVE A 14 DAY COMPRESSIVE STRENGTH OF 3500 PSI WITH A 5-8% ENTRAINED AIR, WITH 6.1 BAG MIX AND 2-4 INCHES OF SLUMP. FINISH WITH A LIGHT BROOM SURFACE. MEET PAVEMENT GRADE WITH A DEPRESSED CURB. CURING COMPOUND APPLIED WHEN FINISHED. MINIMUM CROSS SLOPE SHALL BE 1/4" PER FOOT TOWARD STREET.
  - D-13. WHENEVER NEW CONCRETE ABUTS EXISTING CONCRETE, SET A 3/4" THICK PRE-MOLDED FIBER EXPANSION JOINT AND DOWEL WITH SMOOTH 12" #4 BARS AT 24" O.C. EXCEPT AT BUILDING ENTRANCES WHERE THEY SHALL BE AT 12" O.C. THIS INCLUDES CONCRETE POURED ADJACENT TO EXISTING SIDEWALKS, CURBS AND BUILDING, EXCEPT AT EXPANSION JOINTS. THE DOWEL BARS SHOULD BE 4" INTO EXISTING CONCRETE WITH 8" EXTENDING INTO NEW CONCRETE.
  - D-14. PRIME COAT FOR THE SURFACE COURSE SHALL BE APPLIED TO THE BINDER AT A RATE OF 0.07 GAL/SY (SS-1). PRIME COAT FOR THE BINDER COURSE SHALL BE APPLIED TO THE SUBBASE AT A RATE OF 0.25 GAL/SY (P.E.P.).
  - D-15. WHEREVER A PAVEMENT OVERLAY OCCURS ADJACENT TO A CONCRETE SURFACE OR EXISTING PAVEMENT, THE CONTRACTOR SHALL GRIND DOWN (OR REMOVE) ASPHALT 3' WIDE BY 2" DEPTH UNLESS OTHERWISE NOTED ON THE PLANS. THIS IS CONSIDERED INCIDENTAL TO THE CONTRACT.
  - D-16. ALL CURB AND SIDEWALK SHALL BE REINFORCED WITH TWO #4 REBARS (THREE EQUALLY SPACED REBAR FOR SIDEWALK) WHENEVER THE CURB OR SIDEWALK CROSSES A UTILITY TRENCH. EXTEND THE REBAR TEN FEET BEYOND THE TRENCH ON BOTH SIDES.

**GEWALT HAMILTON ASSOCIATES, INC.**  
CONSULTING ENGINEERS & SURVEYORS  
850 Forest Edge Drive Vernon Hills, IL 60061 Tel. 847.478.9700 Fax 847.478.9701

**COPYRIGHT NOTICE**  
This drawing is the property of Gewalt-Hamilton Assoc., Inc. and is not to be used for any purpose other than the specific project and site named herein, and cannot be reproduced in any manner without the express written permission from Gewalt-Hamilton Associates, Inc.

**GENERAL NOTES & DETAILS**

**RIDGE AVENUE RELIEF SEWER IMPROVEMENTS EVANSTON, ILLINOIS**

FILE 3566-CONTRACT-D	PROJ.# 3566.100	SHEET NUMBER
DRAWN BY: CWS	SCALE:	<b>49</b>
DATE:	N.A.	
CHECKED BY: SDB	DATE:	OF 115 SHEETS

GENERAL NOTES & DETAILS - 3566.100